

DESCRIPTION OF A NEW PHASMA BELONGING TO THE GENUS
EXTATOSOMA.

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(Plate xxxviii.)

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Among the members of the family *Phasmidae* there are many large and curious forms which, both in structure and colouration, are striking examples of protective mimicry.

Those belonging to the genus *Extatosoma* have reached the limit. The females with rudimentary wings are swollen unwieldy creatures. They have the oval head spiny, and the body spined and flanged, the legs are produced into flattened processes, deeply arcuate like the leaves of the English Holly and like some of our brush scrub shrubs. Even the colouration is exaggerated, for besides their uniform deep green colour, the body and legs are often mottled and spotted with greyish-white blotches like the grey lichens so common on the leaves and stems of many coastal shrubs.

Two species have been previously described: the type species *Extatosoma tiaratum* W. S. Macleay, and *E. bufonium* Westwood. Gray, however, going through Hope's collection of Australian insects, found the male and, figuring both sexes, called the male of Macleay's species *Extatosoma hopei*.

Westwood's species, from the description and figure, is apparently an immature female, with the legs very much dilated, and the flanges on the abdominal segments very well developed.

In my "Australian Insects" it is stated that *Extatosoma tiaratum* ranges from Tasmania to New Guinea, but recent investigations prove that the most southern locality where specimens have been obtained is Kiama, N.S. Wales. In answer to my enquiries, Mr. J. A. Kershaw (Curator of the National Museum, Melbourne) informs me that he has no record of its occurrence in Victoria.

While the female is not uncommon in the Gosford and Newcastle scrub country, the male is very rare; probably it is so seldom seen because it has large well developed wings and frequents the tops of the trees. The only two male specimens I have seen are one in our New South Wales Departmental collections, collected over 25 years ago, and a second in the Macleay collection, also a very old specimen.

Though the females are usually deep green, I have had two specimens of them which are of a bright yellow tint, a remarkable colour variation.

EXTATOSOMA ELONGATUM, n.sp. (Plate xxxviii.)

♀. Length from front of head to tip of body 5 inches; ♂ unknown. Colour deep green, lightest on the wing pads; abdomen and legs mottled with dull white and greyish spots. Fine spines on head, thorax, and abdomen reddish-brown. It differs from *Extatosoma tiaratum* in being much more slender in form, and in having the more slender legs with very narrow arcuate flanges or ridges on the femora and tibia, with small lateral flanges on the sides of the first four abdominal segments, and those on the following very much reduced in size; the whole surface is covered with stout spines, thickest on the under surface. The sides and crown of the head thickly covered with sharp pointed spines, with two double spines on the summit. The prothorax covered with similar spines with two double-spined ones on the hind margin; the mesothorax bearing spines on the sides, with three pairs on the dorsal surface, the first pair conical, blunt at apex, with a group of two thickened spines and two single ones in front of the base of the insertion of the tegmina, the metathorax with four parallel rows of smaller spines on the dorsal surface. The legs with the dorsal and lateral edges toothed with short mottled thorn-like spines, the coxae usually bearing shorter stout conical spines, with an odd double spine here and there.

The first three abdominal segments rounded, with a pair of double finger-like spines in the centre of the back and simple spines on either side; below there, standing out is a horny, arcuate, spined, flattened flange. The fifth and sixth segments have a pair of serrate, parallel, erect flanges in the centre of the back and two stout spines; on either side is a large flattened serrate flange in a line with those of the first three segments, about a third larger, and spined in the same manner. The 7th abdominal segment is small, with similar but smaller spines, and the side flanges are turned downwards. The 8th and 9th are small, projecting above the genitalia with similar small spines, and the hind margin of the anal one is fringed with spines. The ventral surface and sides of the abdominal segments are lightly covered with slender reddish-brown spines.

Hab.—Gosford, N.S.W. Found crawling over a brush tree; afterwards kept in a breeding cage for a week when she laid over 100 eggs. There is another ♀ specimen in the Macleay Museum Collections from Camden, N.S. Wales.

EXPLANATION OF PLATE XXXVIII.

Extatosoma elongatum, n.sp. ♀. (x $\frac{3}{4}$).